



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Van Kessel et al.

Serial No.: 09/043,268

Filed: May 7, 1998

For: PAPER AND CARDBOARD  
COMPRISING STARCH-AND  
PROTEIN-CONTAINING MATERIAL

Examiner: D. Walls

Group Art Unit: 1731

Docket: 294-44

Dated: July 23, 1999

GP1731  
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PATENT  
JUL 30 1999  
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Assistant Commissioner for Patents  
Washington, DC 20231

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20231 on July 23, 1999  
Dated: 7/23/99, Peterson

**AMENDMENT**

Do NOT Enter SAW 9-13-99  
In response to the Final Office Action of May 25, 1999, Applicants hereby respond by amending the claims as follows:

1. (Amended Twice) Paper or cardboard comprising protein and starch components of flour in the paper fiber matrix, wherein the components are subjected to a degradation with ammonium persulfate (APS) and protease, APS and amylase, APS and an acid, amylase and protease or a combination thereof before being introduced to the paper or cardboard.

5. (Amended Twice) A method for manufacturing paper or cardboard from a fiber matrix and flour comprising subjecting at least the flour to a deamidation reaction and/or a partial proteolysis treatment comprising, mixing the flour with ammonium persulfate (APS) and protease, APS and